

CUTTING TOOLS

Solid Carbide Jobber Drills

For drilling cast iron, aluminum, plastic, nonferrous alloys and other abrasive but easily machined materials. Not for use on steel.



Size (in.)	Flute Length (in.)	OAL (in.)	Order No.	Regular Price	SALE
1/16	3/4	1-1/2	AX50-004	8.30	6.25
3/32	1	2	AX50-006	9.70	7.25
1/8	1-1/4	2-1/4	AX50-008	11.75	8.80
5/32	1-3/8	2-1/2	AX50-010	14.55	10.90
3/16	1-5/8	2-3/4	AX50-012	17.70	13.25
7/32	1-3/4	3	AX50-014	22.65	16.95
1/4 (E)	2	3-1/4	AX50-016	25.70	19.25
9/32	2-1/8	3-1/2	AX50-018	31.60	23.70
5/16	2-3/8	3-3/4	AX50-020	37.35	27.95
3/8	2-3/4	4-1/4	AX50-024	55.65	41.75
7/16	2-7/8	4-1/2	AX50-028	78.45	58.80
1/2	3	4-3/4	AX50-032	94.90	71.00

A CT029

Solid Carbide Chucking Reamers

- Straight shank
- Straight flute
- Excellent for general purpose reaming of ferrous metals, & for many non-ferrous and non-metallic materials
- 4 Flutes for sizes 1/4" & smaller
- 6 Flutes for sizes over 1/4"

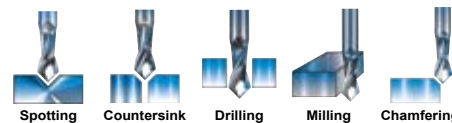


Size (in.)	Flute Length (in.)	OAL (in.)	Order No.	Regular Price	SALE
1/16	3/8	1-1/2	BG50-004	16.10	11.25
3/32	1/2	2	BG50-006	18.75	13.15
1/8	5/8	2-1/4	BG50-008	20.75	14.50
5/32	3/4	2-1/2	BG50-010	23.90	16.75
3/16	7/8	2-3/4	BG50-012	27.60	19.30
7/32	1	3	BG50-014	31.70	22.20
1/4	1	3	BG50-016	32.70	22.90
9/32	1-1/8	3-1/4	BG50-018	39.75	27.80
5/16	1-1/8	3-1/4	BG50-020	45.05	31.50
11/32	1-1/4	3-1/2	BG50-022	50.20	35.15
3/8	1-1/4	3-1/2	BG50-024	56.25	39.35
7/16	1-1/2	4	BG50-028	75.00	52.50
1/2	1-1/2	4	BG50-032	97.75	68.40

B CT264

Drill Mills 2 & 4 Flute 90° Included Point

- Complete size range offering available
- Can be used for drilling, slotting, chamfering and profile milling
- 90° Point
- Made from premium submicron grain carbide



Dia.	Shank	LOC	OAL	ALTIM						Micrograin					
				2 Flute			4 Flute			2 Flute			4 Flute		
				Order No.	Regular Price	SALE	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
1/8	1/8	1/2	1-1/2	DD83-56083	12.00	9.60	DD83-51633	12.00	9.60	DD83-16083	9.55	7.60	DD83-11633	9.55	7.60
3/16	3/16	5/8	2	DD83-56084	16.70	13.35	DD83-51635	16.70	13.35	DD83-16084	13.70	10.95	DD83-11635	13.70	10.95
1/4	1/4	3/4	2-1/2	DD83-56085	22.95	18.35	DD83-51637	22.95	18.35	DD83-16085	17.50	14.00	DD83-11637	17.50	14.00
5/16	5/16	13/16	2-1/2	DD83-56086	29.95	23.95	DD83-51639	29.95	23.95	DD83-16086	22.15	17.70	DD83-11639	22.15	17.70
3/8	3/8	1	2-1/2	DD83-56087	35.35	28.25	DD83-51640	35.35	25.25	DD83-16087	27.60	22.00	DD83-11640	27.60	22.00
1/2	1/2	1	3	DD83-56089	55.20	44.15	DD83-51642	55.20	44.15	DD83-16089	45.70	36.55	DD83-11642	45.70	36.55
5/8	5/8	1-1/4	3-1/2	DD83-56090	101.50	81.20	DD83-51643	101.50	81.20	DD83-16090	88.10	70.45	DD83-11643	88.10	70.45
3/4	3/4	1-1/2	4	DD83-56091	145.80	116.60	DD83-51644	145.80	116.60	DD83-16091	130.05	104.00	DD83-11644	130.05	104.00

C CT605

Solid Carbide 2 & 4 Flute Single End Mills Premium Micrograin Carbide



Dia. (in.)	Shank Dia. (in.)	Flute Length (in.)	OAL (in.)	2 Flute			4 Flute		
				Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
1/16	1/8	1/4	1-1/2	DD50-2004S	6.65	5.30	DD50-4004S	6.65	5.30
5/64	1/8	1/4	1-1/2	DD50-2005S	6.85	5.45	DD50-4005S	6.85	5.45
3/32	1/8	3/8	1-1/2	DD50-2006S	6.30	5.00	DD50-4006S	6.30	5.00
7/64	1/8	3/8	1-1/2	DD50-2007S	7.40	5.90	DD50-4007S	7.40	5.90
1/8	1/8	1/2	1-1/2	DD50-2008S	5.55	4.40	DD50-4008S	5.55	4.40
9/64	3/16	9/16	2	DD50-2009S	9.40	7.50	DD50-4009S	9.40	7.50
5/32	3/16	9/16	2	DD50-2010S	8.95	7.15	DD50-4010S	8.95	7.15
3/16	3/16	9/16	2	DD50-2012S	8.75	7.00	DD50-4012S	8.75	7.00
7/32	1/4	5/8	2-1/2	DD50-2014S	11.45	9.15	DD50-4014S	11.45	9.15
1/4	1/4	3/4	2-1/2	DD50-2016S	10.80	8.60	DD50-4016S	10.80	8.60
9/32	5/16	3/4	2-1/2	DD50-2018S	16.20	12.95	DD50-4018S	16.20	12.95
19/64	5/16	13/16	2-1/2	DD50-2019S	16.85	13.45	DD50-4019S	15.60	12.45
5/16	5/16	13/16	2-1/2	DD50-2020S	14.95	11.95	DD50-4020S	14.95	11.95
3/8	3/8	1	2-1/2	DD50-2024S	17.20	13.75	DD50-4024S	17.20	13.75
7/16	7/16	1	2-3/4	DD50-2028S	25.80	20.60	DD50-4028S	25.80	20.60
1/2	1/2	1	3	DD50-2032S	31.10	24.85	DD50-4032S	31.10	24.85
9/16	9/16	1-1/4	3-1/2	DD50-2036S	50.80	40.60	DD50-4036S	50.80	40.60
5/8	5/8	1-1/4	3-1/2	DD50-2040S	53.60	42.85	DD50-4040S	53.60	42.85
3/4	3/4	1-1/2	4	DD50-2048S	87.50	70.00	DD50-4048S	87.50	70.00
7/8	7/8	1-1/2	4	DD50-2056S	129.75	103.80	DD50-4056S	129.75	103.80
1	1	1-1/2	4	DD50-2100S	133.40	106.70	DD50-4100S	133.40	106.70

B CT055

Solid Carbide Center Drills

- 60° Included Angle
- Carbide for longer tool life especially in abrasive and difficult-to-cut metals



Size No.	Body Dia. (in.)	Drill Dia. (in.)	OAL (in.)	Order No.	Regular Price	SALE
0	1/8	1/32	1-1/4	AV54-CD0	15.10	10.55
1	1/8	3/64	1-1/4	AV54-CD1	14.60	10.20
2	3/16	5/64	1-7/8	AV54-CD2	16.50	11.55
3	1/4	7/64	2	AV54-CD3	25.00	17.50
4	5/16	1/8	2-1/8	AV54-CD4	33.50	23.45
5	7/16	3/16	2-3/4	AV54-CD5	52.95	37.00

B CT624

Aluminum Cutting End Mills 2 Flute, 35° Helix

- Special geometry allows for high chip loads and feed rates
- Small corner radius for added strength and smoother cutting action
- Excellent for slotting and profiling at high speeds
- Made from premium submicron grain carbide
- Tolerances +.000/-.002



MCG

TiCN

Radius	Dia. (in.)	Shank Dia. (in.)	Flute Length (in.)	OAL (in.)	Micrograin			TiCN Coated		
					Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
.010	1/8	1/8	3/8	1-1/2	DD81-17737	9.60	7.65	DD81-47737	11.85	9.45
.010	3/16	3/16	5/8	2	DD81-17739	13.45	10.75	DD81-47739	16.15	12.90
.010	1/4	1/4	3/4	2-1/2	DD81-17741	17.35	13.85	DD81-47741	21.65	17.30
.010	5/16	5/16	13/16	2	DD81-17743	22.60	18.00	DD81-47743	28.80	23.00
.015	3/8	3/8	1	2-1/2	DD81-17745	26.00	20.80	DD81-47745	32.20	25.75
.020	1/2	1/2	1	3	DD81-17749	43.60	34.85	DD81-47749	52.15	41.70
.020	5/8	5/8	1-1/4	3-1/2	DD81-17751	82.25	65.80	DD81-47751	94.30	75.40
.030	3/4	3/4	1-1/2	4	DD81-17752	125.00	100.00	DD81-47752	139.15	111.30

C Complete size range and coating offering available.

CT625

Aluminum Cutting End Mills 3 Flute, 35° Helix

- 3 Flute design for lighter finishing cuts
- Small corner radius for added strength and smoother cutting action
- Made from premium submicron grain carbide
- Tolerances +.000/-.002



MCG

TiCN

Radius	Dia. (in.)	Shank Dia. (in.)	Flute Length (in.)	OAL (in.)	Micrograin			TiCN Coated		
					Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
.005	1/8	1/8	3/8	1-1/2	DD81-17764	9.60	7.65	DD81-47764	11.85	9.45
.005	3/16	3/16	5/8	2	DD81-17766	13.45	10.75	DD81-47766	16.15	12.90
.005	1/4	1/4	3/4	2-1/2	DD81-17768	17.35	13.85	DD81-47768	21.65	17.30
.005	5/16	5/16	13/16	2-1/2	DD81-17770	22.60	18.00	DD81-47770	28.80	23.00
.005	3/8	3/8	1	2-1/2	DD81-17772	26.00	20.80	DD81-47772	32.20	25.76
.005	1/2	1/2	1-1/4	3	DD81-17776	43.60	34.85	DD81-47776	52.15	41.70
.005	5/8	5/8	1-5/8	3-1/2	DD81-17778	82.25	65.80	DD81-47778	94.30	75.40
.005	3/4	3/4	1-5/8	4	DD81-17779	124.30	99.40	DD81-47779	138.45	110.75

C Complete size range and coating offering available.

CT626

Solid Carbide 4-Flute AITiN Coated Square End Single End Mills

Tolerances +.000/-.002



AITiN

Dia. (in.)	Shank Dia. (in.)	Flute Length (in.)	OAL (in.)	Order No.	Regular Price	SALE
1/8	1/8	1/2	1-1/2	DD82-56631	8.80	7.00
3/16	3/16	9/16	2	DD82-56632	12.35	9.85
1/4	1/4	3/4	2-1/2	DD82-56633	12.50	10.00
5/16	5/16	13/16	2-1/2	DD82-56634	18.25	14.60
3/8	3/8	1	2-1/2	DD82-56635	21.00	16.80
1/2	1/2	1	3	DD82-56639	35.75	28.60
5/8	5/8	1-1/4	3-1/2	DD82-56641	58.40	46.70
3/4	3/4	1-1/2	4	DD82-56642	89.35	71.45

C Complete size range and coating offering available.

CT627

Solid Carbide 4-Flute AITiN Coated Ball Nose Single End Mills

Tolerances +.000/-.002



AITiN

Dia. (in.)	Shank Dia. (in.)	Flute Length (in.)	OAL (in.)	Order No.	Regular Price	SALE
1/8	1/8	1/2	1-1/2	DD82-57910	10.30	8.20
3/16	3/16	5/8	2	DD82-57911	14.65	11.70
1/4	1/4	3/4	2-1/2	DD82-57912	19.75	15.80
5/16	5/16	13/16	2-1/2	DD82-57913	25.70	20.55
3/8	3/8	1	2-1/2	DD82-57914	28.85	23.00
1/2	1/2	1	3	DD82-57916	48.85	39.00
5/8	5/8	1-1/4	3-1/2	DD82-51043	97.70	78.15
3/4	3/4	1-1/2	4	DD82-54012	137.25	109.80

C Complete size range and coating offering available.

CT628

60° Helix — 3-Flute

- Used for stainless steel and high temperature alloy materials
- High helix provides excellent shearing action
- Made from premium submicron grain carbide
- Tolerances +.000/-.002



AITiN

MCG

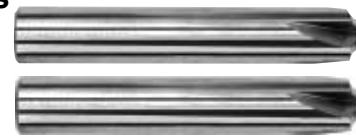
Size (in.)	Shank Dia. (in.)	Flute Length (in.)	OAL (in.)	ALTiN			Micrograin		
				Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
3/16	3/16	5/8	2	DD81-50797	19.20	15.35	DD81-10797	13.10	10.45
1/4	1/4	3/4	2-1/2	DD81-54238	22.70	18.15	DD81-14238	17.35	13.85
5/16	5/16	13/16	2-1/2	DD81-54240	29.25	23.40	DD81-14240	22.85	18.25
3/8	3/8	1	2-1/2	DD81-54242	34.50	27.60	DD81-14242	28.10	22.45
7/16	7/16	1	3	DD81-54246	45.25	36.20	DD81-14246	37.95	30.35
1/2	1/2	1	3	DD81-54248	53.85	43.00	DD81-14248	46.60	37.25
9/16	9/16	1-1/4	3-1/2	DD81-54250	111.85	89.45	DD81-14250	100.60	80.45
5/8	5/8	1-1/4	3-1/2	DD81-54252	98.15	78.50	DD81-14252	86.90	69.50
3/4	3/4	1-1/2	4	DD81-54254	136.75	109.40	DD81-14254	118.40	94.70
1	1	1-1/2	4	DD81-54256	209.25	167.40	DD81-14256	189.40	151.50

C

CT629

Corner Rounding 3 & 4 Flute Single End End Mills

- Can provide uniform finish on corners
- Radius is form relieved
- Made from premium submicron grain carbide
- Tolerances +.000/-.002



MCG

Radius (in.)	Dia. (in.)	Shank (in.)	OAL (in.)	Coating - Micrograin					
				3 Flute			4 Flute		
				Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
1/32	1/8	3/16	2	DD83-16092	20.80	16.60	DD83-16099	20.80	16.60
1/16	1/8	1/4	2-1/2	DD83-16093	29.90	23.90	DD83-16100	29.90	23.90
3/32	3/16	3/8	2-1/2	DD83-16094	44.00	35.20	DD83-16101	44.00	35.20
1/8	1/4	1/2	3	DD83-16095	60.45	48.35	DD83-16102	60.45	48.35
5/32	5/16	5/8	3-1/2	DD83-16096	88.70	70.95	DD83-16103	88.70	70.95
3/16	3/8	3/4	4	DD83-16097	134.15	107.30	DD83-16104	134.15	107.30
1/4	1/2	1	4	DD83-16098	203.85	163.00	DD83-16105	203.85	163.00

C

CT630



Power. Precision. Performance.

Use Tools with a Corner Radius to Get Better Tool Life and Improve Surface Finish



Using an end mill with a corner radius greatly extends tool life in most applications, especially roughing cuts and those in materials with low machinability ratings. Corner chipping can lead to tool failure and poor finishes. Adding a corner radius reduces chipping and improves tool life by protecting the weakest part of the end mill.

POW•R•FEED® - 4 Variable Flutes



- Stainless Steels
- Cast Iron
- High Temp Alloys
- Low Carbon Steels
- Inconel
- Titanium

The unique vibration dampening design of POW•R•FEED results in smooth, silent machining at high speeds with excellent surface finishes.

Dia. (in.)	Shank Dia. (in.)	Flute Length (in.)	OAL (in.)	Corner Radius	Order No.	Regular Price	SALE
1/8	1/8	1/4	2-1/4	.015	DD40-63259	20.65	16.50
1/8	1/8	1/2	1-1/2	.015	DD40-63064	16.25	13.00
5/32	3/16	9/16	2	.015	DD40-63118	24.35	19.45
3/16	3/16	5/16	2	.015	DD40-63249	22.75	18.20
3/16	3/16	5/16	2-1/2	.015	DD40-63260	30.00	24.00
3/16	3/16	5/8	2	.015	DD40-63065	22.75	18.20
7/32	1/4	5/8	2-1/2	.020	DD40-63119	30.25	24.20
1/4	1/4	3/4	2-1/2	.020	DD40-63066	27.90	22.30
1/4	1/4	3/4	2-1/2	.030	DD40-63466	27.90	22.30
1/4	1/4	1-1/8	3	.020	DD40-63420	33.05	26.40
1/4	1/4	1-1/2	4	.020	DD40-63425	39.20	31.35
5/16	5/16	13/16	2-1/2	.020	DD40-63067	38.50	30.80
3/8	3/8	7/8	2-1/2	.020	DD40-63068	45.85	36.65
3/8	3/8	7/8	2-1/2	.030	DD40-63390	45.85	36.65
3/8	3/8	1-1/8	3	.020	DD40-63421	54.85	43.85
3/8	3/8	1-3/4	4	.020	DD40-63426	67.00	53.60
7/16	7/16	1	2-3/4	.020	DD40-63069	60.00	48.00
1/2	1/2	1	3	.030	DD40-63070	72.25	57.80
1/2	1/2	1-1/4	3	.015	DD40-63467	72.75	58.20
1/2	1/2	1-1/4	3	.030	DD40-63098	72.75	58.20
1/2	1/2	1-1/4	3	.060	DD40-63391	72.75	58.20
1/2	1/2	2	4	.030	DD40-63422	93.00	74.40
1/2	1/2	2-1/2	5	.030	DD40-63427	112.90	90.30
1/2	1/2	3	6	.030	DD40-63430	125.35	100.25
5/8	5/8	1-1/4	3-1/2	.015	DD40-63468	140.60	112.45
5/8	5/8	1-1/4	3-1/2	.030	DD40-63071	140.60	112.45
5/8	5/8	1-1/4	3-1/2	.060	DD40-63394	140.60	112.45
3/4	3/4	1-1/2	4	.015	DD40-63469	203.70	162.95
3/4	3/4	1-1/2	4	.030	DD40-63072	203.70	162.95
3/4	3/4	1-1/2	4	.060	DD40-63395	203.70	162.95
3/4	3/4	2-1/4	5	.030	DD40-63423	244.65	195.70
3/4	3/4	3	6	.030	DD40-63428	274.00	219.20
1	1	1-1/2	4	.030	DD40-63073	309.45	247.50
1	1	1-1/2	4	.060	DD40-63398	309.45	247.50
1	1	3	6	.030	DD40-63429	401.90	321.50

C

CT632



Omega-6® - 6 High Strength Flutes



Plain Shank



Weldon® Shank

Omega-6 is the high strength tool of choice for light to medium cuts in hard to machine materials.

- Hardened Steels
- Inconel
- Nickel based alloys

Dia. (in.)	Shank Dia. (in.)	Flute Length (in.)	OAL (in.)	Corner Radius	Round Shank			Weldon Shank		
					Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
1/8	1/8	1/4	1-1/2	.015	DD40-62983	27.30	21.80	—	—	—
1/8	1/8	1/2	1-1/2	.015	DD40-62791	30.50	24.40	—	—	—
3/16	3/16	5/16	2	.015	DD40-62984	29.65	23.70	—	—	—
3/16	3/16	9/16	2	.015	DD40-62792	33.20	26.55	—	—	—
1/4	1/4	3/8	2-1/2	.020	DD40-62985	31.70	25.30	—	—	—
1/4	1/4	3/4	2-1/2	.020	DD40-62793	39.20	31.35	DD40-30568	40.75	32.60
1/4	1/4	3/4	2-1/2	.030	DD40-62838	39.20	31.35	DD40-62847	40.75	32.60
3/8	3/8	1/2	2-1/2	.030	DD40-62986	48.35	38.65	—	—	—
3/8	3/8	1	2-1/2	.030	DD40-62795	54.25	43.40	DD40-30570	56.00	44.80
1/2	1/2	5/8	3	.030	DD40-62987	73.85	59.00	—	—	—
1/2	1/2	1-1/4	3	.030	DD40-62797	80.10	64.00	DD40-30572	82.20	65.75
5/8	5/8	3/4	3-1/2	.030	DD40-62988	145.35	116.25	—	—	—
5/8	5/8	1-5/8	3-1/2	.030	DD40-62798	161.55	129.20	DD40-30574	164.00	131.20
3/4	3/4	1	4	.030	DD40-62989	186.30	149.00	—	—	—
3/4	3/4	1-5/8	4	.030	DD40-62799	207.40	165.90	DD40-30575	210.50	168.40

C

CT631



STREAKERS® - High Shear for Aluminum



3-Flute

Our unique 3-flute design increases metal removal rates, even on low HP machines, by reducing power draw.



2-Flute

The 2-flute design offers greater flute spacing for faster stock removal and chip evacuation.

Dia. (in.)	Shank Dia. (in.)	Flute Length (in.)	OAL (in.)	Corner Radius	2 Flute			3 Flute		
					Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
1/4	1/4	3/4	2-1/2	.015	DD40-33544	41.20	32.95	DD40-34386	41.20	32.95
1/4	1/4	3/4	2-1/2	.030	DD40-33548	41.20	32.95	DD40-34388	41.20	32.95
1/4	1/4	1-1/4	3	.015	DD40-33552	53.40	42.70	DD40-34435	54.05	43.20
1/4	1/4	1-1/4	3	.030	DD40-34382	53.40	42.70	DD40-34438	54.05	43.20
3/8	3/8	1	2-1/2	.015	DD40-33648	50.75	40.60	DD40-34458	56.10	44.85
3/8	3/8	1	2-1/2	.030	DD40-33689	50.75	40.60	DD40-34460	56.10	44.85
3/8	3/8	1-1/2	3-1/4	.015	DD40-33693	69.80	55.80	DD40-34462	70.65	56.50
3/8	3/8	1-1/2	3-1/4	.030	DD40-33886	69.80	55.80	DD40-34480	70.65	56.50
3/8	3/8	2	4	.015	DD40-34100	85.00	68.00	DD40-34484	81.30	65.00
3/8	3/8	2	4	.030	DD40-34144	85.00	68.00	DD40-34488	81.30	65.00
1/2	1/2	1-1/4	3	.015	DD40-34146	71.75	57.40	DD40-34492	80.50	64.40
1/2	1/2	1-1/4	3	.030	DD40-34161	71.75	57.40	DD40-34522	76.65	61.30
1/2	1/2	2	4	.030	DD40-34204	110.50	88.40	DD40-34534	111.50	89.20
1/2	1/2	3-1/2	6	.030	—	—	—	DD40-34543	185.35	148.25
5/8	5/8	1-5/8	3-1/2	.030	DD40-34237	133.70	106.95	DD40-34545	146.60	117.25
5/8	5/8	2-1/2	5	.030	DD40-34243	190.45	152.35	DD40-34549	192.30	153.80
5/8	5/8	3-3/4	6	.030	—	—	—	DD40-34551	282.30	225.80
3/4	3/4	1-5/8	4	.030	DD40-34245	177.40	141.90	DD40-34553	191.95	153.55
3/4	3/4	2-1/2	5	.030	DD40-34343	229.60	183.65	DD40-34558	231.80	185.40
3/4	3/4	3-1/4	6	.030	DD40-34345	249.65	199.70	DD40-34560	258.35	206.65

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CT633



Jobber Length Drills



- High speed steel & cobalt
- Standard duty & heavy duty
- Standard pkg. qty: 12 pcs. - 1/16" - 3/8"
6 pcs. - 25/64" - 1/2"

**SAVE
20%**



Drill Dia. (in.)	Flute Length (in.)	OAL (in.)	118° Standard Point			135° Split Point					
			High Speed Steel			Cobalt			High Speed Steel		
			Order No.	Regular Price	SALE	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
1/16	7/8	1-7/8	MT10-11382	1.35	1.05	MT11-17110	1.90	1.50	MT55-14451	1.30	1.00
3/32	1-1/4	2-1/4	MT10-11395	1.30	1.00	MT11-17123	1.90	1.50	MT55-14464	1.35	1.05
1/8	1-5/8	2-3/4	MT10-11408	1.20	0.95	MT11-17136	2.50	2.00	MT55-14477	1.40	1.10
5/32	2	3-1/8	MT10-11418	1.50	1.20	MT11-17146	2.75	2.20	MT55-14487	1.50	1.20
3/16	2-5/16	3-1/2	MT10-11430	1.85	1.45	MT11-17158	3.25	2.60	MT55-14499	1.80	1.40
7/32	2-1/2	3-3/4	MT10-11442	2.25	1.80	MT11-17170	4.30	3.40	MT55-14511	2.35	1.85
1/4	2-3/4	4	MT10-11450	2.35	1.85	MT11-17178	4.90	3.90	MT55-14519	2.60	2.05
9/32	2-15/16	4-1/4	MT10-11459	3.05	2.40	MT11-17187	5.75	4.60	MT55-14528	3.10	2.45
5/16	3-3/16	4-1/2	MT10-11464	3.90	3.10	MT11-17192	7.70	6.15	MT55-14533	4.00	3.20
11/32	3-7/16	4-3/4	MT10-11470	5.00	4.00	MT11-17198	9.65	7.70	MT55-14539	5.00	4.00
3/8	3-5/8	5	MT10-11475	5.15	4.10	MT11-17203	11.05	8.80	MT55-14544	5.85	4.65
13/32	3-7/8	5-1/4	MT10-11481	6.90	5.50	MT11-17209	13.20	10.55	MT55-14550	6.85	5.45
7/16	4-1/16	5-1/2	MT10-11484	7.95	6.35	MT11-17212	14.90	11.90	MT55-14553	7.90	6.30
15/32	4-5/16	5-3/4	MT10-11486	9.50	7.60	MT11-17214	18.25	14.60	MT55-14555	9.45	7.55
1/2	4-1/2	6	MT10-11488	9.25	7.40	MT11-17216	18.60	14.85	MT55-14557	10.10	8.05

C

CT336



NC Spotting Drills

High Speed Steel Bright Finish
Short, Regular or Long Series
90° Points



Ideal for close tolerance NC spotting operations. Provides a more accurate and faster spotting location for follow-up drilling. Eliminates wandering.

Body Dia. (in.)	Flute Length (in.)	OAL (in.)	Order No.	Regular Price	SALE
1/4	3/4	2-1/2	AF60-11900	15.35	11.50
1/4	3/4	4	AF60-11912	29.20	21.90
3/8	1-1/8	3-1/8	AF60-11901	18.85	14.10
3/8	1-1/8	5	AF60-11913	29.85	22.35
1/2	1-3/8	3-3/4	AF60-11902	26.90	20.15
1/2	1-3/8	6	AF60-11914	40.00	29.95
5/8	1-5/8	4-3/8	AF60-11903	34.75	25.95
5/8	1-5/8	7	AF60-11915	44.60	33.45
3/4	1-7/8	5	AF60-11904	45.50	34.10
3/4	1-7/8	8	AF60-11916	55.10	41.30
1	2-1/4	6	AF60-11905	71.20	53.35
1	2-1/4	8	AF60-11917	88.75	66.50

C

CT572



Electronic Edge Finder



- Repeatability: .0002"
- Edge finder lights instantly when stylus touches work edge
- Read off any electrically conductive metal
- Furnished complete with bulb, AAA alkaline battery and protective sleeve
- Six lights provide better visibility at any angle



Order No. NA55-54575600
Regular Price \$28.00

SALE \$22.50

MT961

D



1/2" Shank Silver & Deming Drills

118° Standard Point - High Speed Steel
3" Flute Length - 6" OAL



Size (in.)	Order No.	Regular Price	SALE
17/32	MT57-17032	17.75	14.20
9/16	MT57-17034	18.85	14.95
19/32	MT57-17036	20.50	16.40
5/8	MT57-17038	21.25	16.95
21/32	MT57-17040	22.90	18.30
11/16	MT57-17042	23.55	18.80
23/32	MT57-17044	24.45	19.50
3/4	MT57-17046	26.65	21.30
25/32	MT57-17048	28.85	22.95
13/16	MT57-17050	29.90	23.90
7/8	MT57-17054	32.55	25.95
15/16	MT57-17058	36.35	28.95
1	MT57-17062	42.75	34.20
1-1/16	MT57-17066	62.75	50.20
1-1/8	MT57-17070	70.25	56.20
1-3/16	MT57-17074	77.15	61.70
1-1/4	MT57-17078	85.40	68.30

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CT570



OSG Taper Pipe Taps Ground Thread

TAP & DIE, INC.

- High Speed Steel
- NPT/ANPT, NPTF
- Regular thread



Size	Thread Length (in.)	OAL (in.)	No. of Flutes	NPT or ANPT			NPTF		
				Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
1/16-27	11/16	2-1/8	4 Flute	TP13-1310000	25.65	20.50	TP13-1312500	25.65	20.50
1/8-27 (lg. shk.)	3/4	2-1/8	4 Flute	TP13-1310100	25.65	20.50	TP13-1312600	25.65	20.50
1/8-27 (sm. shk.)	3/4	2-1/8	4 Flute	TP13-1310200†	25.65	20.50	TP13-1312700†	25.65	20.50
1/4-18	1-1/16	2-7/16	4 Flute	TP13-1310300	28.35	22.65	TP13-1312800	28.35	22.65
3/8-18	1-1/16	2-9/16	4 Flute	TP13-1310400	37.40	29.90	TP13-1312900	37.40	29.90
1/2-14	1-3/8	3-1/8	4 Flute	TP13-1310500	59.45	47.50	TP13-1313000	59.45	47.50
3/4-14	1-3/8	3-1/4	5 Flute	TP13-1310600	83.10	66.45	TP13-1313100	83.10	66.45
1-11-1/2	1-3/4	3-3/4	5 Flute	TP13-1310700	126.50	101.00	TP13-1313200	126.50	101.00



CT509



OSG Spiral Point Taps

TAP & DIE, INC.

- High speed steel
- Ground thread
- Plug style



Size	Thread Limits	No. of Flutes	Order No.	Regular Price	SALE
#4-40	H2	2 Flute	TP11-1206400	7.90	6.30
#6-32	H3	2 Flute	TP11-1212400	6.65	5.30
#8-32	H3	2 Flute	TP11-1212800	6.65	5.30
#10-24	H3	2 Flute	TP11-1213400	6.65	5.30
#10-32	H3	2 Flute	TP11-1213800	6.65	5.30
1/4-20	H3	2 Flute	TP11-1230000	6.65	5.30
5/16-18	H3	2 Flute	TP11-1230800	7.15	5.70
3/8-16	H3	3 Flute	TP11-1231600	8.50	6.80
1/2-13	H3	3 Flute	TP11-1232400	14.75	11.80
5/8-11	H3	3 Flute	TP11-1233200	35.15	28.10
3/4-10	H3	3 Flute	TP11-1233600	49.55	39.60



CT505



OSG Metric Spiral Point Taps

TAP & DIE, INC.

- High speed steel - Ground thread - Plug style
- Designed for machine tapping in open or through holes
- Suitable for use in a wide variety of materials



Size	No. of Flutes	Pitch Dia. Limits	Order No.	Regular Price	SALE
M2 x 0.40	2 Flute	D3	TP12-1982000	18.50	14.80
M2.5 x 0.45	2 Flute	D3	TP12-1982100	13.35	10.65
M2.0 x 2.50	3 Flute	D7	TP12-1983700	71.45	57.15
M3 x 0.50	2 Flute	D3	TP12-1980100	10.80	8.60
M3.5 x 0.60	2 Flute	D4	TP12-1982200	9.30	7.40
M4 x 0.70	2 Flute	D4	TP12-1980400	9.30	7.40
M5 x 0.80	2 Flute	D4	TP12-1980700	9.30	7.40
M6 x 1.00	2 Flute	D5	TP12-1981000	9.30	7.40
M8 x 1.00	3 Flute	D5	TP12-1982500	10.80	8.60
M8 x 1.25	2 Flute	D5	TP12-1981300	10.80	8.60
M10 x 1.25	3 Flute	D5	TP12-1982700	17.90	14.30
M10 x 1.50	3 Flute	D6	TP12-1981600	17.90	14.30
M12 x 1.25	3 Flute	D5	TP12-1982800	21.80	17.40
M12 x 1.75	3 Flute	D6	TP12-1981900	21.80	17.40
M14 x 1.25	3 Flute	D5	TP12-1983000	32.45	25.95
M14 x 1.50	3 Flute	D6	TP12-1983800	32.45	25.95
M14 x 2.00	3 Flute	D7	TP12-1983100	32.45	25.95
M16 x 1.50	3 Flute	D6	TP12-1983200	37.95	30.35
M16 x 2.00	3 Flute	D7	TP12-1983300	37.95	30.35



CT501



OSG TAP & DIE, INC.



Spiral Point Plug Style

- List 280 steam oxide finish
- For tapping hardened steel
- Best application: 4140, 4340, H13, D2 and 1055 up to 35HRC
- Other H limits available and bright finish taps



Size	No. of Flutes	Thread Limit	Order No.	Regular Price	SALE
#4-40	2 Flute	H3	TP28-2811401	13.30	11.95
#4-40	2 Flute	H5	TP28-2816401	13.30	11.95
#6-32	2 Flute	H3	TP28-2812401	11.05	9.95
#6-32	2 Flute	H5	TP28-2817401	11.05	9.95
#8-32	3 Flute	H3	TP28-2812801	11.05	9.95
#8-32	3 Flute	H5	TP28-2817801	11.05	9.95
#10-24	3 Flute	H3	TP28-2813401	11.05	9.95
#10-24	3 Flute	H5	TP28-2818401	11.05	9.95
#10-32	3 Flute	H3	TP28-2813801	11.05	9.95
#10-32	3 Flute	H5	TP28-2818801	11.05	9.95
1/4-20	3 Flute	H3	TP28-2830001	12.30	10.95
1/4-20	3 Flute	H5	TP28-2840001	12.30	10.95
1/4-28	3 Flute	H3	TP28-2830401	12.30	10.95
1/4-28	3 Flute	H5	TP28-2840401	12.30	10.95
5/16-18	3 Flute	H3	TP28-2830801	13.80	12.40
5/16-18	3 Flute	H5	TP28-2840801	13.80	12.40
5/16-24	3 Flute	H3	TP28-2831201	13.80	12.40
5/16-24	3 Flute	H5	TP28-2841201	13.80	12.40
3/8-16	3 Flute	H3	TP28-2831601	15.55	13.95
3/8-16	3 Flute	H5	TP28-2841601	15.55	13.95
3/8-24	3 Flute	H3	TP28-2831801	15.55	13.95
3/8-24	3 Flute	H5	TP28-2841801	15.55	13.95
7/16-14	3 Flute	H3	TP28-2832001	20.20	18.15
7/16-20	3 Flute	H3	TP28-2832201	20.20	18.15
1/2-13	3 Flute	H3	TP28-2832401	23.35	20.95
1/2-20	3 Flute	H3	TP28-2832601	23.35	20.95
5/8-11	3 Flute	H3	TP28-2833201	42.30	37.95
5/8-11	3 Flute	H5	TP28-2843201	42.30	37.95
5/8-18	3 Flute	H3	TP28-2833401	42.30	37.95
3/4-10	3 Flute	H3	TP28-2833601	66.35	59.70
3/4-10	3 Flute	H5	TP28-2843601	66.35	59.70
7/8-9	3 Flute	H5	TP28-2844001	98.55	88.70
1-8	4 Flute	H5	TP28-2844401	131.25	118.00



CT545



OSG TAP & DIE, INC.



Spiral Fluted with Modified Bottom

- List 290 steam oxide finish
- For tapping hardened steel
- Best Application: 4140, 4340, H13, D2 and 1055 up to 35HRC
- Other H limits available and bright finish taps



Size	No. of Flutes	H3			H5		
		Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
#4-40	3 Flute	TP28-2911401	19.95	17.95	—	—	—
#6-32	3 Flute	TP28-2912401	16.20	14.50	TP28-2917401	16.20	14.50
#8-32	3 Flute	TP28-2912801	16.20	14.50	TP28-2917801	16.20	14.50
#10-24	3 Flute	TP28-2913401	16.20	14.50	TP28-2918401	16.20	14.50
#10-32	3 Flute	TP28-2913801	16.20	14.50	TP28-2918801	16.20	14.50
1/4-20	3 Flute	TP28-2930001	17.60	15.80	TP28-2940001	17.60	15.80
1/4-28	3 Flute	TP28-2930401	17.60	15.80	TP28-2940401	17.60	15.80
5/16-18	3 Flute	TP28-2930801	21.60	19.40	TP28-2940801	21.60	19.40
5/16-24	3 Flute	TP28-2931201	21.60	19.40	TP28-2941201	21.60	19.40
3/8-16	3 Flute	TP28-2931601	25.10	22.55	TP28-2941601	25.10	22.55
3/8-24	3 Flute	TP28-2931801	25.10	22.55	TP28-2941801	25.10	22.55
7/16-14	3 Flute	TP28-2932001	37.50	33.75	TP28-2942001	37.50	33.75
7/16-20	3 Flute	TP28-2932201	37.50	33.75	TP28-2942201	37.50	33.75
1/2-13	3 Flute	TP28-2932401	44.20	39.75	TP28-2942401	44.20	39.75
1/2-20	3 Flute	TP28-2932601	44.20	39.75	TP28-2942601	44.20	39.75
5/8-11	4 Flute	TP28-2933201	77.80	69.95	TP28-2943201	77.80	69.95
5/8-18	4 Flute	TP28-2933401	77.80	69.95	—	—	—
3/4-10	4 Flute	TP28-2933601	100.05	89.95	TP28-2943601	100.05	89.95
3/4-16	4 Flute	TP28-2933801	100.05	89.95	TP28-2943801	100.05	89.95
7/8-9	4 Flute	—	—	—	TP28-2944001	138.95	124.95
1-8	4 Flute	—	—	—	TP28-2944401	185.30	166.75



CT546



Spiral Flute SHEARTAP™

- Semi-Bottoming
- CNC neck design
- HSS - Oxide over Nitride
- Also available in spiral point
- For tapping blind holes
- High volume production tapping in carbon steels & stainless steels up to 35Rc

SAVE
20%



Size Type - Inch						
Size	Thread Type	No. of Flutes	Thread Limit	Order No.	Regular Price	SALE
#6-32	NC	3 Flute	H3	MT35-34454	16.40	13.10
#8-32	NC	3 Flute	H3	MT35-34457	16.40	13.10
#10-24	NC	3 Flute	H3	MT35-34460	16.20	12.95
#10-32	NF	3 Flute	H3	MT35-34462	16.40	13.10
1/4-20	NC	3 Flute	H3	MT35-34466	18.00	14.40
1/4-28	NF	3 Flute	H3	MT35-34468	18.15	14.50
5/16-18	NC	3 Flute	H3	MT35-34470	20.20	16.15
5/16-24	NF	3 Flute	H3	MT35-34472	20.40	16.30
3/8-16	NC	3 Flute	H3	MT35-34474	22.15	17.70
3/8-24	NF	3 Flute	H3	MT35-34476	22.40	17.90
7/16-14	NC	3 Flute	H3	MT35-34478	28.65	22.90
7/16-20	NF	3 Flute	H3	MT35-34480	28.65	22.90
1/2-13	NC	3 Flute	H3	MT35-34482	33.15	26.50
1/2-20	NF	3 Flute	H3	MT35-34484	33.55	26.80
5/8-11	NC	3 Flute	H3	MT35-34488	59.85	47.85
3/4-10	NC	4 Flute	H3	MT35-34492	74.50	59.60
1-8	NC	4 Flute	H4	MT35-34522	140.90	112.70

Size Type - Metric						
Size	No. of Flutes	Thread Limit	Order No.	Regular Price	SALE	
M3 X .5	3 Flute	D3	MT35-35258	19.80	15.80	
M4 X .7	3 Flute	D4	MT35-35260	17.90	14.30	
M5 X .8	3 Flute	D4	MT35-35261	19.15	15.30	
M6 X 1	3 Flute	D5	MT35-35262	19.55	15.60	
M8 X 1	3 Flute	D5	MT35-35264	21.95	17.55	
M8 X 1.25	3 Flute	D5	MT35-35265	21.95	17.55	
M10 X 1.25	3 Flute	D5	MT35-35266	26.05	20.80	
M10 X 1.5	3 Flute	D6	MT35-35267	26.05	20.80	
M12 X 1.25	3 Flute	D5	MT35-35268	36.20	28.95	
M12 X 1.75	3 Flute	D6	MT35-35269	36.20	28.95	
M14 X 1.5	3 Flute	D6	MT35-35270	56.20	44.95	
M14 X 2	3 Flute	D7	MT35-35271	56.20	44.95	
M16 X 1.5	3 Flute	D6	MT35-35272	65.55	52.40	
M16 X 2	3 Flute	D7	MT35-35273	65.55	52.40	
M20 X 2.5	4 Flute	D7	MT35-35291	117.15	93.70	
M24 X 2	4 Flute	D7	MT35-35294	165.60	132.45	
M24 X 3	4 Flute	D8	MT35-35295	231.35	185.00	

C

CT325



HPT High Performance Taps



- Spiral Flute - CNC Reduced Neck Design
- P/M Powder Metallurgy HSS - Material Specific Geometry
- Exotic Alloys for steels, steel alloys, stainless steels, titanium alloys, nickel alloys & other exotic alloys up to 32Rc - Titanium Carbonitride Coating
- Aluminum for all types of aluminum alloys - Chromium Nitride Coating
- Long life & superior performance in production tapping applications
- For tapping blind holes



For Use With - Exotic Alloys Coating - TiCN						
Size	Thread Type	No. of Flutes	Thread Limit	Order No.	Regular Price	SALE
#4-40	NC	3 Flute	H2	MT33-60920	35.30	33.50
#6-32	NC	3 Flute	H2	MT33-60922	29.05	27.60
#8-32	NC	3 Flute	H3	MT33-60925	30.15	28.60
#10-24	NC	3 Flute	H3	MT33-60926	30.50	28.95
#10-32	NF	3 Flute	H3	MT33-60929	30.50	28.95
1/4-20	NC	3 Flute	H3	MT33-60930	32.90	31.25
1/4-28	NF	3 Flute	H3	MT33-60932	32.90	31.25
5/16-18	NC	3 Flute	H3	MT33-60934	39.35	37.35
5/16-24	NF	3 Flute	H3	MT33-60936	39.35	37.35
3/8-16	NC	3 Flute	H3	MT33-60938	42.90	40.75
3/8-24	NF	3 Flute	H3	MT33-60940	42.90	40.75
7/16-14	NC	3 Flute	H3	MT33-60942	51.10	48.55
7/16-20	NF	3 Flute	H3	MT33-60944	51.10	48.55
1/2-13	NC	3 Flute	H3	MT33-60946	59.50	56.50
1/2-20	NF	3 Flute	H3	MT33-60948	59.50	56.50

For Use With - Aluminum Alloys Coating - CrN						
Size	Thread Type	No. of Flutes	Thread Limit	Order No.	Regular Price	SALE
#4-40	NC	2 Flute	H2	MT33-60770	29.80	28.30
#6-32	NC	2 Flute	H2	MT33-60774	24.20	22.95
#8-32	NC	2 Flute	H3	MT33-60778	22.65	21.50
#10-24	NC	2 Flute	H3	MT33-60780	22.65	21.50
#10-32	NF	2 Flute	H3	MT33-60782	22.65	21.50
1/4-20	NC	2 Flute	H3	MT33-60783	25.50	24.20
1/4-28	NF	2 Flute	H3	MT33-60785	25.50	24.20
5/16-18	NC	2 Flute	H3	MT33-60787	27.80	26.40
5/16-24	NF	2 Flute	H3	MT33-60789	27.80	26.40
3/8-16	NC	2 Flute	H3	MT33-60791	30.50	28.95
3/8-24	NF	2 Flute	H3	MT33-60793	30.50	28.95
7/16-14	NC	2 Flute	H3	MT33-60795	40.00	38.00
7/16-20	NF	2 Flute	H3	MT33-60797	40.00	38.00
1/2-13	NC	2 Flute	H3	MT33-60799	47.40	45.00
1/2-20	NF	2 Flute	H3	MT33-60801	47.40	45.00

F

CT325

CUTTING TOOLS



Combined Drill & Countersinks High Speed Steel

60° Included Angle



Size	Body Dia. (in.)	OAL (in.)	Order No.	Regular Price	SALE
1	1/8	1-1/4	AV50-1	1.00	0.75
2	3/16	1-7/8	AV50-2	1.10	0.80
3	1/4	2	AV50-3	1.10	0.80
4	5/16	2-1/8	AV50-4	1.10	0.95
5	7/16	2-3/4	AV50-5	2.50	1.95
6	1/2	3	AV50-6	3.55	2.80
7	5/8	3-1/4	AV50-7	5.45	4.65
8	3/4	3-1/2	AV50-8	7.45	5.95

B CT057



82° Countersinks



High Speed Steel

- Chatterless finish
- Single cutting edge for fast stock removal
- Pilotless - Style No. 1



Countersinks you can count on - from start to finish

Model No.	Screw Size	Dia. of Cut (Min.-Max.) (in.)	Shank Dia. (in.)	OAL (in.)	Order No.	Regular Price	SALE
CS-5S	#4 or #5	4, 5	1/4	1-1/2	BB40-CS5S	7.30	5.95
CS-6S	#6	6	1/4	1-1/2	BB40-CS6S	7.70	6.30
CS-8S	#8	8	1/4	1-5/8	BB40-CS8S	8.20	6.70
CS-10S	#10	10	1/4	1-5/8	BB40-CS10S	9.65	7.91
CS-18	-	3/16 to 17/32	1/4	1-7/8	BB40-CS18	12.65	10.35
CS-26A	-	.307 to 25/32	1/4	2-1/16	BB40-CS26A	21.95	17.95
CS-26	-	.307 to 25/32	1/2	2-5/8	BB40-CS26	21.95	17.95
CS-36	-	.431 to 7/8	1/2	2-13/16	BB40-CS36	37.30	30.55
CS-48	-	1/2 to 1-15/32	1/2	3-1/2	BB40-CS48	85.10	69.75

C CT339



Deburring Tools Set B - Standard Deburring Kit

- For external or internal deburring
- Telescoping blade holder
- 1-1/2" Normal length - extends to 5" for deep reach



Set Includes	Deburring Application	Order No.	Regular Price	SALE
Aluminum Handle / B10, B20 Blades	Steel, Aluminum, Brass, Cast Iron, Plastics	FN50-BAL	13.60	10.95
Plastic Handle / B10, B20 Blades	Steel, Aluminum, Brass, Cast Iron, Plastics	FN50-B	10.90	8.95

Deburring Application	Order No.	Regular Price	SALE
B Holder	FN50-BHB	5.30	4.25
The basic HSS blade used for steel & aluminum with special nose for the worker's protection.	FN50-B10	1.65	1.30
This HSS blade is used for brass & cast iron, it can rotate clockwise & anti-clockwise.	FN50-B20	1.65	1.30
The basic HSS blade used for plastics.	FN50-B12	1.65	1.30
Solid carbide blade similar to B10, for extra hard applications.	FN50-B10C	5.75	4.60
Solid carbide blade similar to B20, for extra hard applications.	FN50-B20C	5.75	4.60
Same as B10 blade with TiN-Coating for extended life when deburring exotic & abrasives materials.	FN50-B10P	2.45	1.95
Same as B20 blade with TiN Coating for extended life when deburring exotic & abrasive materials.	FN50-B20P	2.45	1.95

Order No.	Regular Price	SALE
FN50-HA	4.00	3.25
FN50-HAL	7.55	6.25

B HT146



Glo-Burr B & E Plus 20 Cobalt Blades

Includes

- 2 Slim grip Glo-Burr tools for light & heavy deburring
- 10 B10S Cobalt blades
- 10 E100S Cobalt blades



Order No. FN50-GB20BE
Regular Price \$17.50

B **SALE \$13⁰⁰** CT494

IRWIN HANSON T-Handle Ratcheting Tap Wrenches



- Three-position gear box provides quick, efficient ratcheting action
- Knurled nut for tightening
- Ideal for hard-to-reach areas
- Chrome plated for long life and rust resistance

Type - T-Handle / Ratchet			
Description	Order No.	Regular Price	SALE
For taps No. 0 to 1/4 (3mm to 6mm)	EW51-21201	21.70	18.45
For taps 1/4 to 1/2 (6mm to 12mm)	EW51-21202	24.65	20.95
10" Extended length for taps No. 0 to 1/4 (3mm to 6mm)	EW51-21210	28.90	24.50
12" Extended length for taps 1/4 to 1/2 (6mm to 12mm)	EW51-21212	32.20	27.35

Type - T-Handle			
Description	Order No.	Regular Price	SALE
For taps No. 0 to 1/4 (3mm to 6mm)	EW51-12001	5.45	4.65
For taps No. 12 to 5/16	EW51-12115	6.65	5.65
For taps 1/4 to 1/2 (6mm to 12mm)	EW51-12002	7.70	6.50

C HT524



41 Pc. Tap & Hex Die Set No. 4 through 1/2" Carbon Steel



- Packed in a hinged durable plastic case with removable tray
- Contains one each of the following taps and hex dies:
- Thread Sizes: 4-40, 6-32, 8-32, 10-24, 10-32, 12-24, 1/4-20, 1/4-28, 5/16-18, 5/16-24, 3/8-16, 3/8-24, 7/16-14, 7/16-20, 1/2-13, 1/2-20, 1/8-27 NPT
- Threading Tools: 2 Die stocks, Tap handles, Tap wrench, 1 Screwdriver, 1 Thread gage



Order No. EW51-24606
Regular Price \$146.45

C **SALE \$124⁵⁰** CT064



Spiral 5 Pc. Screw Extractor Sets

- #1-5 Spiral flute extractors
- Designed to remove broken bolts, studs, socket screws and fitting
- Remove from 3/32 - 5/8 size range



Order No. EW51-52435
Regular Price \$11.75

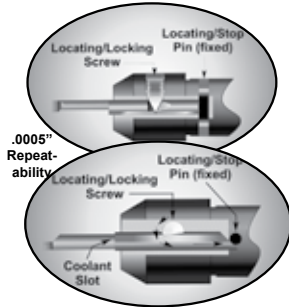
C **SALE \$9⁴⁰** HT514



Quik Change Tooling Systems

Quik Change Tool Holders

- Unique "2 Point" Locking System engineered for maximum tool rigidity and centerline repeatability
- Bore, Groove, Face Groove, Profile, and Thread from...One Tool Station! Reduce machine setup, downtime, and tooling costs while boosting productivity.
- Coolant through capabilities
- Heat treated tool holders
- Additional sizes available



Fits - 1/2"/12.7mm Shanks						
Shank Dia. (D2) (in./mm)	I.D. Dia. (D3) (in./mm)	OAL (in./mm)	Head Dia. (D1) (in./mm)	Order No.	Regular Price	SALE
0.500/12.7	0.1875/4.76	4.00/100	0.750/19.1	GE46-QTH85	99.40	42.50
0.500/12.7	0.2500/6.35	4.00/100	0.750/19.1	GE46-QTH86	99.40	42.50

Fits - 5/8"/15.9mm Shanks						
Shank Dia. (D2) (in./mm)	I.D. Dia. (D3) (in./mm)	OAL (in./mm)	Head Dia. (D1) (in./mm)	Order No.	Regular Price	SALE
0.625/15.9	0.1875/4.76	4.00/100	0.750/19.1	GE46-QTH105	99.40	42.50
0.625/15.9	0.2500/6.35	4.00/100	0.750/19.1	GE46-QTH106	99.40	42.50
0.625/15.9	0.3125/7.94	4.00/100	0.875/22.2	GE46-QTH107	99.40	42.50
0.625/15.9	0.3750/9.53	4.00/100	1.00/25.4	GE46-QTH108	99.40	42.50

Fits - 3/4"/19.1mm Shanks						
Shank Dia. (D2) (in./mm)	I.D. Dia. (D3) (in./mm)	OAL (in./mm)	Head Dia. (D1) (in./mm)	Order No.	Regular Price	SALE
0.750/19.1	0.1875/4.76	4.00/100	0.875/22.2	GE46-QTH205	99.40	42.50
0.750/19.1	0.2500/6.35	4.00/100	0.875/22.2	GE46-QTH206	99.40	42.50
0.750/19.1	0.3750/9.53	4.00/100	1.00/25.4	GE46-QTH208	99.40	42.50
0.750/19.1	0.5000/12.70	4.00/100	1.06/27.0	GE46-QTH210	99.40	42.50
0.7500/19.1	0.3125/7.94	4.00/100	0.875/22.2	GE46-QTH207	99.40	42.50

Fits - 1"/25.4mm Shanks						
Shank Dia. (D2) (in./mm)	I.D. Dia. (D3) (in./mm)	OAL (in./mm)	Head Dia. (D1) (in./mm)	Order No.	Regular Price	SALE
1.00/25.4	0.1875/4.76	4.00/100	1.06/27.0	GE46-QTH405	99.40	42.50
1.00/25.4	0.2500/6.35	4.00/100	1.06/27.0	GE46-QTH406	99.40	42.50
1.00/25.4	0.3125/7.94	4.00/100	1.06/27.0	GE46-QTH407	99.40	42.50
1.00/25.4	0.3750/9.53	4.00/100	1.06/27.0	GE46-QTH408	99.40	42.50
1.00/25.4	0.5000/12.70	4.00/100	1.06/27.0	GE46-QTH410	99.40	42.50



E



Locating/Locking Screw

Type	Order No.	Regular Price	SALE
Quick Change Set Screw (pkg. of 10)	GE46-QC10	29.25	25.00
Quick Change Set Screw (1)	GE46-QC1	4.10	3.50

E

C203



Retaining Ring Grooving Tools



- Tolerances**
 Shank Dia.: -.0001" (-.005mm) to -.002" (.01mm)
 Min. Bore Dia.: ±.0005" (±.01mm)
 Max. Bore Depth: +.050" (+1.27mm)
 Uncoated/Coated (AlTiN) Tools available
- Minimum Groove Ranges: .015" (0.38mm) - .250" (6.35mm)
 - Maximum Groove Ranges: .250" (6.35mm) - 1.500" (38.1mm)
 - Shank sizes: 3/16" (4.8mm), 1/4" (6.4mm), 5/16" (7.9mm), 3/8" (9.5mm), & 1/2" (12.7mm)
 - Elliptical necks for maximum rigidity
 - Coolant through capabilities

Groove Width (in.)	Min. Bore Depth (in.)	Max. Bore Depth (in.)	Projection (in.)	Shank Dia. (in.)	OAL (in.)	Order No.	Reg. Price	SALE
0.017	0.180	0.375	0.030	0.1875	1.5	GE46-QRR0176	28.20	24.10
0.017	0.180	0.500	0.030	0.1875	1.5	GE46-QRR0178	28.20	24.10
0.017	0.180	0.625	0.030	0.1875	2.0	GE46-QRR01710	28.20	24.10
0.030	0.245	0.250	0.050	0.250	2.0	GE46-QRR0304	33.10	28.30
0.030	0.245	0.375	0.050	0.250	2.0	GE46-QRR0306	33.10	28.30
0.030	0.245	0.500	0.050	0.250	2.0	GE46-QRR0308	33.10	28.30
0.030	0.245	0.625	0.050	0.250	2.0	GE46-QRR03010	33.10	28.30
0.033	0.310	0.375	0.100	0.312	2.0	GE46-QRR0336	41.35	35.35
0.033	0.310	0.500	0.100	0.312	2.0	GE46-QRR0338	41.35	35.35
0.033	0.310	0.750	0.100	0.312	2.0	GE46-QRR03312	41.35	35.35
0.038	0.310	0.750	0.100	0.312	2.0	GE46-QRR03812	41.35	35.35
0.046	0.370	0.500	0.100	0.375	2.0	GE46-QRR0468	53.90	46.10
0.062	0.370	1.00	0.100	0.375	2.5	GE46-QRR06216	53.90	46.10
0.062	0.370	1.2500	0.100	0.375	2.5	GE46-QRR06220	53.90	46.10
0.069	0.370	1.00	0.100	0.375	2.5	GE46-QRR06916	53.90	46.10
0.087	0.370	0.750	0.100	0.375	2.0	GE46-QRR08712	53.90	46.10
0.093	0.495	0.750	0.150	0.500	2.5	GE46-QRR09312	75.60	64.65
0.125	0.495	0.750	0.150	0.500	2.5	GE46-QRR12512	75.60	64.65
0.187	0.495	1.00	0.150	0.500	2.5	GE46-QRR18716	75.60	64.65
0.250	0.495	1.00	0.150	0.500	2.5	GE46-QRR25016	75.60	64.65

E

Complete size offering available • AlTiN tools available

C201



Solid Carbide Boring Tools



- Tolerances**
 Shank Dia.: -.0001" (-.005mm) to -.0002" (-.01mm)
 Min. Bore Dia.: ±.0005" (±.01mm)
 Max. Bore Depth: ±.050" (±1.27mm)
- Uncoated/Coated (AlTiN) Tools available
- Min. Bore Ranges: .015" (0.38mm) - .490" (12.5mm)
 - Shank sizes: 3/16" (4.8mm), 1/4" (6.4mm), 5/16" (7.9mm), 3/8" (9.5mm), & 1/2" (12.7mm)
 - Elliptical necks for maximum rigidity
 - Radii: Sharp cornered, .003" (0.08mm) - .005" (0.13mm)

Min. Bore Dia. (in.)	Projection (in.)	Nose Radius (in.)	Shank Dia. (in.)	OAL (in.)	Order No.	Reg. Price	SALE
0.050	0.013	0	0.1875	1.5	GE46-QBB050150	23.30	19.90
0.060	0.015	0	0.1875	1.5	GE46-QBB060150	23.30	19.90
0.080	0.020	0	0.1875	1.5	GE46-QBB080300	23.30	19.90
0.080	0.020	0	0.1875	2.0	GE46-QBB080600	23.30	19.90
0.100	0.025	0.003	0.1875	1.5	GE46-QBB100300	24.75	21.15
0.120	0.030	0.003	0.1875	1.5	GE46-QBB120350	24.75	21.15
0.120	0.030	0.003	0.1875	1.5	GE46-QBB120500	24.75	21.15
0.120	0.030	0.003	0.1875	2.0	GE46-QBB120800	24.75	21.15
0.140	0.035	0.003	0.1875	2.0	GE46-QBB140800	24.75	21.15
0.160	0.040	0.003	0.1875	2.0	GE46-QBB1601000	24.75	21.15
0.180	0.045	0.005	0.2500	2.0	GE46-QBB180500	28.35	24.25
0.180	0.045	0.005	0.2500	2.0	GE46-QBB180750	28.35	24.25
0.200	0.050	0.005	0.2500	2.0	GE46-QBB200500	28.35	24.25
0.200	0.050	0.005	0.2500	2.5	GE46-QBB2001000	28.35	24.25
0.230	0.058	0.005	0.3125	2.5	GE46-QBB2301000	38.15	32.60
0.230	0.058	0.005	0.3125	2.5	GE46-QBB2301250	38.15	32.60
0.230	0.058	0.005	0.3125	3.0	GE46-QBB2301600	45.05	38.50
0.290	0.073	0.005	0.3125	3.0	GE46-QBB2901750	45.05	38.50
0.320	0.080	0.005	0.3750	2.5	GE46-QBB3201000	52.10	44.55
0.320	0.080	0.005	0.3750	2.5	GE46-QBB3201250	52.10	44.55
0.360	0.090	0.005	0.3750	2.5	GE46-QBB3601000	52.10	44.55
0.360	0.090	0.005	0.3750	2.5	GE46-QBB3601250	52.10	44.55
0.490	0.123	0.005	0.5000	3.0	GE46-QBB4901500	72.60	62.10

E

Complete size offering available • AlTiN tools available

C202